

## Special Issue

# Bio-Based Hydrogels: Design, Synthesis and Applications

### Message from the Guest Editors

Bio-based hydrogels are a type of smart material that can swell and absorb large amounts of water or biological fluids. They are composed of natural polymers, such as cellulose, chitosan, alginate, and gelatin, which have great potential in developing advanced biomedical applications. Bio-based hydrogels have gained significant attention in recent years due to their biocompatibility, biodegradability, and non-toxic nature. In addition to their potential benefits, the development of bio-based hydrogels also presents significant challenges, including the optimization of their mechanical properties, stability, and controllable release kinetics. This Special Issue includes articles that cover various aspects of bio-based hydrogels, such as their synthesis, characterization, and properties, as well as their applications in drug delivery, tissue engineering, wound healing, and environmental, agricultural, and industrial applications. The articles also discuss the challenges and opportunities in the field of bio-based hydrogels and highlight the potential of these materials in developing innovative and sustainable solutions for biomedical applications.

### Guest Editors

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### Deadline for manuscript submissions

closed (31 March 2025)



## Gels

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## About the Journal

### Message from the Editor-in-Chief

*Gels* (ISSN 2310-2861) is recently established international, open access journal on physical and chemical gel-based materials. The journal aim is to encourage scientists to publish their experimental and theoretical results in as much detail as possible. General topics include but not limited to synthesis, characterization and applications of new organogels, hydrogels and ionic gels made either from low molecular weight compounds or polymers, composite and hybrid materials where a metal is by some means incorporated into the gel network, and computational studies of these materials in order to provide a better understanding of gelation mechanism. We cordially invite you to consider publishing with us and contribute with your own grain of sand to the advance in this fascinating field.

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### Editor-in-Chief

Prof. Dr. Esmail Jabbari

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